



# Launch Mission Execution Forecast

**Mission:** Atlas V CST-100 OFT-2

**Issued:** 19 May 2022 / 0830L (1230Z)

**Valid:** 19 May 2022 / 1845 – 1905L (2245 – 2305Z)



**Forecast Discussion:** *No significant change to the forecast reasoning.* Isolated showers, and perhaps a thunderstorm, are expected to form along and west of Interstate 95 this afternoon as the Atlantic sea breeze develops and moves inland. Overall, coverage of these showers and storms should be slightly lower relative to Wednesday, thus the probability of violation for today's launch opportunity has been dropped to 20%. Conditions are still expected to deteriorate significantly Friday afternoon and evening as a plume of deeper moisture moves upward from South Florida. As a result, the forecast remains more pessimistic for the backup opportunity with higher probabilities of violations of the Cumulus Cloud Rule, Anvil Cloud Rules, and Flight through Precipitation constraint.

Launch Day	Probability of Violating Weather Constraints <sup>1</sup>					
	20%	Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules				
	Weather Conditions					Additional Risk Criteria <sup>2</sup>
	<b>Weather/Visibility:</b> Iso Showers / 7 mi.	<b>Clouds</b>				<b>Solar Activity:</b> Low
		Type	Coverage	Base (ft)	Tops (ft)	
	<b>Temp/Humidity:</b> 80°F / 78%	Cumulus	Few	3,500	8,000	
	<b>Ground Winds (230'):</b> 150° 14 - 19 knots	Cirrus	Scattered	26,000	35,000	
24-Hour Delay	Probability of Violating Weather Constraints					
	70%	Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules, Flight through Precipitation				
	Weather Conditions					Additional Risk Criteria
	<b>Weather/Visibility:</b> Sct Storms / 7 mi.	<b>Clouds</b>				<b>Solar Activity:</b> Low
		Type	Coverage	Base (ft)	Tops (ft)	
	<b>Temp/Humidity:</b> 77°F / 88%	Cumulus	Scattered	2,500	12,000	
	<b>Ground Winds (230'):</b> 170° 14 - 19 knots	Alto cumulus	Broken	15,000	20,000	
Notes	<p>1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.</p> <p>2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.</p> <p>See <a href="https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf">https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</a> for more information.</p>					
Next Forecast Will Be Issued		As Required				